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## AMENDMENTS TO THE SPECIFICATION

At page 19, please replace the last paragraph comprising a portion of Table 1 with the following amended paragraph:

**Table 1. Human Phagocytosis-related Genes Isolated by CHANGE**

| NAME | CLONE NUMBER | NUCLEIC ACID SEQ ID NO. | AMINOACID SEQ ID NO(S) | IDENTITY |
|---|---|---|---|---|
| PHG-1 | 6-29 | 1 | ~~71-79~~70-78 | Unknown |
| PHG-2 | 33-25 | 2 | ~~80~~79 | Prostaglandin D2 synthase |
| PHG-3 | 33-74 | 3 | ~~81~~80 | Myelin basic protein |
| PHG-4 | 43-16 | 4 | ~~82-84~~81-83 | Unknown |
| PHG-5 | 45-88 | 5 | ~~85~~84 | Unknown |

At page 20, please replace the first paragraph with the following amended paragraph, comprising the remainder of Table 1:

| | | | | |
|---|---|---|---|---|
| PHG-6 | 53-7 | 6 | ~~86~~85 | Peanut-like 2/septin 4 |
| PHG-7 | 55-26 | 7 | ~~87~~86 | Coactosin-like 1 |
| PHG-8 | 55-28 | 8 | ~~88~~87 | Clusterin |
| PHG-9 | 57-29 | 9 | ~~89~~88 | Casein kinase 1 epsilon |
| PHG-10 | 57-29 | 9 | ~~89~~88 | Casein kinase 1 epsilon (duplicate) |
| PHG-11 | 73-51 | 10 | ~~90~~89 | Ferritin heavy polypeptide 1 |
| PHG-12 | 74-39 | 11 | ~~91~~90 | Metargidin |
| PHG-13 | 78-70a | 12 | ~~92-98~~91-97 | Unknown |
| PHG-14 | 78-70c | 13 | ~~99~~98 | Retinaldehyde binding protein 1 |
| PHG-15 | 80-31 | 14 | ~~100~~99 | Actin gamma 1 |

| | | | | |
|---|---|---|---|---|
| PHG-16 | 91-40 | 15 | ~~101~~100 | Matrix metalloproteinase, membrane-associated 1 (MT1-MMP) |

At page 21, please replace the first full paragraph with the following amended paragraph, comprising Table 2:

**Table 2. AMD-Related Phagogenes ("AMDP" Genes) Isolated by Iterative CHANGE Analysis**

| NAME | CLONE NUMBER | NUCLEIC ACID SEQ ID NO. | AMINOACID SEQ ID NO(S) | IDENTITY |
|---|---|---|---|---|
| AMDP-1 | 33-25 | 2 | ~~80~~79 | Prostaglandin D2 synthase |
| AMDP-2 | 37-14 | 16 | ~~102~~101 | SWI/SNF related/OSA-1 nuclear protein |
| AMDP-3 | 47-94 | 17 | ~~103-121~~102-120 | Unknown |
| AMDP-4 | 57-29 | 9 | ~~89~~88 | Casein kinase 1 epsilon |
| AMDP-5 | 73-51 | 10 | ~~90~~89 | Ferritin heavy polypeptide 1 |
| AMDP-6 | 91-40 | 15 | ~~101~~100 | Matrix metalloproteinase, membrane associated 1 (MT1-MMP) |

At page 21, please replace the last paragraph with the following amended paragraph:

As described above, the invention provides nucleic acid and amino acid sequences relating to genes discovered by a differential cloning strategy (CHANGE) to exhibit altered expression during RPE phagocytosis and/or in AMD. In one aspect, the invention provides novel purified nucleic acids (polynucleotides) isolated by this

strategy. Previously unknown nucleic acids of the invention include nucleic acid sequences identified herein as PHG-1 (SEQ ID NO:1); PHG-4 (SEQ ID NO. 4); PHG-5 (SEQ ID NO: 5); PHG-13 (SEQ ID NO:12); and AMDP-3 (SEQ ID NO:17). These nucleic acids encode, respectively, polypeptides having the amino acid sequences identified herein as SEQ ID NOS:~~71-79; 82-84; 85; 92-98; and 103-121~~70-78, 81-83, 84, 91-97, and 102-120.

At page 31, please replace the first paragraph with the following amended paragraph:

Agents That Modulate Expression or Activity of Phagocytosis-Related and AMDP-Related Gene Products

In another aspect, the invention provides agents that modulate expression levels of mRNA or protein of phagocytosis-related and/or AMDP-related genes. Preferred genes/proteins to be targeted for down-regulation are those showing increased expression in AMD and related disorders, including, as demonstrated herein, prostaglandin D2 synthase, PD2S (respective nucleic acid and amino acid sequences: SEQ ID NOS:2 and ~~80~~79), MT1-MMP (SEQ ID NOS:15 and ~~101~~100) and AMDP-3 (SEQ ID NOS:17 and ~~103-121~~102-120). Preferred genes/proteins to be targeted for up-regulation are those showing decreased expression in AMD and related disorders, including, as demonstrated herein, SWI/SNF related OSA-1 nuclear protein (SEQ ID NOS:16 and ~~102~~101), casein kinase 1 epsilon (SEQ ID NOS:9 and ~~89~~88) and ferritin heavy polypeptide 1(SEQ ID NOS:10 and ~~101~~89).

At page 40, please replace the second complete paragraph with the following amended paragraph:

Other embodiments of agents that can down-regulate expression or neutralize the biological activity of the phagocytosis-related and/or AMDP-related genes of the invention are based on proteins. An example of a protein that can modulate expression and/or neutralize a biological function of a phagocytosis-related and/or AMDP-related gene product is an antibody that specifically binds a phagocytosis-related and/or AMDP-related polypeptide or peptide. Preferred polypeptides, for which mRNA levels are

shown herein to be elevated in AMD, include those encoded by nucleic acids having SEQ ID NOS:2, 15 and 17, i.e., polypeptides having amino acid sequences respectively identified herein as SEQ ID NOS:~~80~~79, ~~101~~100, and ~~103-124~~102-120. The antibodies of the invention can be used to interfere with the interaction of a phagocytosis-related and/or AMDP-related protein with one or more molecules that bind or otherwise interact with the phagocytosis-related and/or AMDP-related protein. For instance, an antibody directed against MT1-MMP protein is thought to neutralize the ability of this protein to activate progelatinase A. The results of a study described herein using an antibody directed against MT1-MMP showed delay of retinal degeneration in a rat model of RPE-based disease characterized by over-expression of MT1-MMP. Accordingly, inhibition of excessive production of MT1-MMP in the interphotoreceptor matrix using an anti-MT1-MMP antibody might be used in the eyes of patients with AMD to reduce destruction of the matrix and improve phagocytosis.